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10/681,006

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EXAMINER

JACKSON, JENISE E

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/681,006 | Applicant(s) CROMER ET AL. | |
| | Examiner Jenise E. Jackson | Art Unit 2131 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-16, 19-21 and 25 is/are rejected.
- 7) ☒ Claim(s) 14, 17, 18 and 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>20031007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 7,072,691. Although the conflicting claims are not identical, they are not patentably distinct from each other because, Claims 1-10 of the 10681006 therefore is not patently distinct from the Patent 7072691 and as such is unpatentable for obvious-type double patenting.

A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. *In re Longi*, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); *In re Berg*, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent

application claim to a genus is anticipated by a patent claim to a species within that genus).” ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC(DECIDED: May 30, 2001).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 7-8, 19-21, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Quinn et(2002/0137472).

4. As per claim 1, Quinn discloses receiving a CRUable U-NII radio card into an interface slot within a wireless ready device designed for receiving radio cards[see fig. 1, prior art show dual mode, ISM-802.11b which develop by IEEE for systems that operate 2.4 GHz Industrial, Scientific and Medical called ISM and U-NII=802.11a is 5.0GHz Unlicensed National Information Infrastructure called U-NII, fig. 4a-4c], said radio card having a radio identification (ID) parameter is inherent, wherein said slot enables said radio to be electrically coupled to and interface with an antenna that is embedded in the device and has an antenna identification (ID) parameter[fig. 1, fig. 2-fig. 4c]; during boot up of the device, completing an authentication process utilizing a table within a BIOS of the device of paired radio-antenna IDs for authorized radio-antenna combinations, wherein the authentication process verifies that said radio is an authorized radio for utilization with the antenna within the device under U-NII standards[0023];

and when said authentication process verifies that said radio is authorized, completing a boot of said device and enable U-NII communication via the combination of said antenna and said radio[see fig. 1-fig. 4c, 0034-0035], wherein a U-NII transmitter meeting an FCC "integral" requirement is provided within the wireless ready device having an embedded antenna[0007, 0008, 0012, 0013].

5. As per claim 3, Quinn discloses following a power on of said device, initiating a BIOS check of system components, wherein the radio ID is read from the CRUable U-NII radio that is also electrically coupled to said BIOS[0023, 0037-0038]; populating the table within system BIOS with authorized antenna-radio ID pairs for that device[0023]; retrieving the antenna ID from a storage location within said BIOS; reading a first radio ID from the table within the BIOS, wherein said radio PCI ID read is one stored as a paired entry in said table with the retrieved antenna ID of the embedded antenna; comparing a pairing of said radio ID and said antenna ID against the table of approved radio/antenna ID pairs, wherein the radio IDs are compared once the retrieved antenna ID is located within the table[0023, 0042].

6. As per claim 7, Quinn discloses when said first radio ID and said second radio ID matches, allowing a boot process being executed on the device to complete, wherein when said match does not occur, said boot process is terminated[0023-0042].

7. As per claim 8, Quinn discloses when said first radio ID and said second radio ID does not match, disabling said radio from operating within said device, wherein said device is booted without U-NII transmission capability[fig. 2, 0023, 0034].

8. As per claim 19, Quinn discloses in a device having an embedded antenna designed for supporting wireless communication via the U-NII wireless protocol, a basic input/output system

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(BIOS), and an interface for electrically coupling a CRUable U-NII radio[fig. 1-fig. 4c, 0013-0016], a method for providing an authorized U-NII transmitter within the device, said method comprising: detecting at the interface an electrical coupling to a CRUable mPCI card containing a U-NI-standard radio having an associated radio PCI ID and other identifying characteristic; comparing the radio's PCI ID with a second radio PCI ID obtained from a table of radio-antenna PCI ID pairs corresponding to authorized U-NII radio-antenna combinations[fig. 1-fig. 4c, 0042], wherein said table is provided within the BIOS of the device and said second radio PCI ID is selected by matching the antenna ID of the embedded antenna with a similar antenna ID within the table; enabling U-NII transmission via the combination of the radio and the antenna only when said radio IDs match, indicating an approved combination of said radio and said embedded antenna[0023, 0042].

9. As per claim 20, Quinn discloses following a power on of said device, initiating a BIOS check of system components, wherein the radio ID is read from the CRUable U-NII radio that is also electrically coupled to said BIOS[fig. 1-fig. 4c, 0023]; populating the table within system BIOS with authorized antenna-radio 11) pairs for that device; retrieving the antenna ID from a storage location within said BIOS; reading a first radio ID from the table within the BIOS, wherein said radio PCI ID read is one stored as a paired entry in said table with the retrieved antenna ID of the embedded antenna[0023, 0042]; comparing a pairing of said radio ID and said antenna ID against the table of approved radio/antenna ID pairs, wherein the radio IDs are compared once the retrieved antenna ID is located within the table[0042].

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10. As per claim 21, Quinn discloses terminating said boot up when said comparison indicates the radio's ID does not match one within the table of approved radio-antenna ID pairs selected by matching the antenna ID[0023].
11. As per claim 25, Quinn discloses wherein said device is a portable computer system[0009, 0018].

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 2, 6, 11-13, 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quinn in view of Kobayashi et al(6,845,450).
14. As per claim 2, Quinn discloses wherein: said CRUable U-NII radio is fabricated on a wireless module that also comprises a register holding the radio ID and an interface for connecting to said interface slot of said device[fig. 4c, 0014-0016]; said device comprises the antenna, the interface slot, a coax connector slot and coax coupling the connector slot to said antenna, a basic input/output system (BIOS)[fig. 4c, 0013, 0014-0016] with a table of approved radio-antenna pairings, and said step for completing an authentication process completes a radio-to-antenna and a radio-to-device authentication process, wherein only a correct radio model is enabled[0034-0035, 0057-0059]. Quinn does not disclose and an OEM field with a secret key programmed by a manufacturer. However, Kobayashi et al. disclose an oem field with a secret

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key programmed by a manufacturer[see col. 5, lines 34-41]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include an oem field with a secret key programmed by a manufacturer of Kobayashi with Quinn, the motivation is that third parties may be unable to access or decipher the keys stored, thus this is a more secure method[see col. 5, lines 39-41 of Kobayashi].

15. As per claim 6, Quinn discloses wherein said radio ID and said antenna ID are peripheral component interconnect (PCI) identifications (IDs)[0023,0042].

16. As per claim 11, Quinn discloses an embedded antenna having an antenna ID and specific design characteristics to enable U-NII transmission when coupled to an authorized U-NII radio; an interface which receives a CRUable U-NII radio card with a radio having a radio ID[fig. 1-fig.4c], wherein said interface enables said radio to be electrically coupled to and interface with the embedded antenna; a BIOS that comprises and a table of radio ID and antenna ID pairs for authorized U-NII radio-antenna combinations[0023, 0042], said; an authentication mechanism associated with said BIOS that initiates a radio-to-device verification process during boot up of the device that verifies that said radio is an authorized radio for utilization with the embedded antenna and within said device according to pre-established U-NII standards[fig. 1-fig. 4c, 0023, 0034-0035]; and U-NII transmitter activation logic that, when said verification process verifies that said radio is authorized for utilization with said antenna and within said device[0023, 0042], for completing a boot of said device and enabling U-NII communication via the combination of said antenna and said radio, wherein a U-NII transmitter meeting an FCC "integral" requirement is provided within the wireless ready device[0007-0008, 0012-0013].

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Quinn does not disclose an OEM field, and OEM field storing an encrypted allowable card ID. Kobayashi discloses an oem field, and oem field storing an encrypted allowable card id[see col. 2, lines 33-51]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the oem field, and oem field storing an encrypted allowable card id of Kobayashi with Quinn, the motivation is that the keys need not be shared with the providers of the integrated circuits(i.e. card). Oems may ensure the availability of the key without the fear of comprising security by sharing the keys with the providers[see col. 2, lines 41-51 of Kobayashi].

17. As per claim 12, Quinn discloses said CRUable U-NII radio is fabricated on a wireless module that also comprises a register holding the radio ID and an interface for connecting to said interface slot of said device[fig. 4c, 0014-0016]; said device comprises the antenna, the interface slot, a coax connector slot and coax coupling the connector slot to said antenna[fig. 4c, 0013-0016], a basic input/output system (BIOS) with a table of approved radio-antenna pairings[0023], and said authentication mechanism provides both radio-to-antenna authentication and radio-to-device authentication, such that only an authorized radio within an approved device is enabled[0034-0035, 0057-0059]. Quinn does not disclose and an OEM field with a secret key programmed by a manufacturer. However, Kobayashi et al. disclose an oem field with a secret key programmed by a manufacturer[see col. 5, lines 34-41]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include an oem field with a secret key programmed by a manufacturer of Kobayashi with Quinn, the motivation is that third parties may be unable to access or decipher the keys stored, thus this is a more secure method[see col. 5, lines 39-41 of Kobayashi].

18. As per claim 13, Quinn discloses activation code, which initiates a BIOS check of system components following a power on of said device, wherein the radio ID is read from the CRUable U-NII radio that is also electrically coupled to said BIOS[0023]; authentication code that (1) populates the table within system BIOS with authorized antenna-radio ID pairs for that device; (2) retrieves the antenna ID from a storage location within said BIOS; and (3) reads a first radio ID from the table within the BIOS, wherein said radio ID read is one stored as a paired entry in said table with the retrieved antenna ID of the embedded antenna[0042]; a comparator that compares a pairing of said radio ID and said antenna ID against the table of approved radio/antenna ID pairs, wherein the radio IDs are compared once the retrieved antenna ID is located within the table; and a verification mechanism that, when said first PCI ID and said second PCI ID matches, signals an approval of said radio-to-device authentication as a successful authentication of said radio for operation within said device[0023, 0042].

19. As per claim 15, Quinn discloses boot termination mechanism that allows a boot process being executed on the device to complete when said first radio ID and said second radio ID matches, wherein when said match does not occur, said boot termination mechanism terminates said boot process[0023].

20. As per claim 16, Quinn discloses a transmission disabling mechanism that disables said radio from operating within said device when said first radio ID and said second radio ID does not match, wherein said device is booted without U-NII transmission capability[fig. 2, 0023, 0034].

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21. Claims 14, 17-18, 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following claims are objected to for the following features: retrieving a secret key from an OEM field within said BIOS, said secret key being an allowable card ID for that device, which is encrypted and stored in said OEM field by a manufacturer of said device; decrypting said secret key; comparing said secret key against card IDs within the table matching the ID of the CRUable U-NII radio card; and enabling said radio to operate within said device only when said secret key matches the card ID, wherein U-NII transmission via the radio-antenna combination is enabled only when said radio-antenna ID pairing matches one of said approved radio/antenna ID pairs within the table and said secret key matches the ID of the connected radio card; and wherein a request for U-NII connection is allowed to proceed only when said approval flag indicates that U-NII connection is authorized and said secret key matches the card ID, and clearing said approval flag whenever a triggering condition is registered on the device, said triggering condition being a condition from among rebooting the device, removing the wireless module, breaking a connection between said antenna and said radio, modification/replacement of the antenna.

22. Claims 4-5, 9-10 are rejected under double patenting. Upon the filing of the terminal disclaimer, if the dependent limitations would be rewritten in independent form including all the limitations of the base claim and any intervening claims. The claims would be considered for allowance.

Conclusion

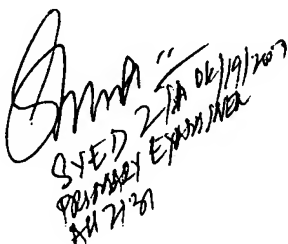
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenise E. Jackson whose telephone number is (571) 272-3791. The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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